

REMARKS

Claims 6 and 24 have been canceled, without prejudice, and claims 1, 2, 4, 5, 7, and 23 have been amended. Claims 25-31 have been added. Accordingly, claims 1-5, 7, 23, and 25-31 will be pending upon entry of the instant amendment. Support for these amendments can be found throughout the specification and claims as originally filed. Specifically, support may be found, for example, at page 5, paragraph [0012]; at pages 47-48, paragraph [0255]; and at page 48, paragraph [0258]. No new matter has been added.

Objections to the Specification Should Be Withdrawn

The Examiner objected to the specification because of various informalities. Specifically, the Examiner stated “the title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.” Applicants have amended the title to recite “METHODS AND COMPOSITIONS FOR TREATING UROLOGICAL DISORDERS USING 8263.” Thus, the amended title is clearly indicative of the claimed invention, i.e. those methods and compositions for treating urological disorders, specific to the 8263 molecules.

The Examiner also objected to the specification for including “terminology, which is so different from that which is generally accepted in the art to which this invention pertains that a proper search of the prior art cannot accurately be made. For example, the description of a urological cell is said to include brain and spinal cord cell (see page 5, paragraph 12).”

The Manual of Patent Examining Procedure, at MPEP 2173.05 (a) states “the meaning of every term used in a claim should be apparent from the prior art or the specification and drawings at the time the application was filed” (emphasis added); and “Applicants need not confine themselves to the terminology used in the prior art”. Finally, the MPEP 2173.05(a) further states “If the claims, read in the light of the specification, reasonably apprise those skilled in the art both of the utilization and scope of the invention, and if the language is as precise as the subject matter permits, the statute demands no more.” Therefore, Applicants submit that, despite the amendment of claim 5 defining “urological cell” as defined on page 5 of the specification (please see below, section on 35 USC §112, second paragraph), the definition of “urological cell” in the specification is entirely proper as it is a term defined in the specification, and reasonably apprises the skilled artisan in both the utilization and scope of the invention.

Furthermore, Applicants submit that such a definition for “urological cell” as found on page 5 of the application as filed, which includes a bladder cell, a prostate cell, a kidney cell, a vascular cell, a urethral cell, a dorsal root ganglion cell, a trigeminal ganglion cell, a brain cell, or a spinal cord cell, is well-established and understood by those skilled in the art at the time of filing of the instant application.

Applicants respectfully point out that de Groat (Urology, Volume 50, Supplement 6A: pages 36-52, December 1997) teaches “The functions of the lower urinary tract (LUT) to store and periodically release urine are dependent on neural circuits in the brain and spinal cord” as well as in the “peripheral ganglia” (emphasis added, see page 36, first sentence of the Abstract, and first sentence of the introduction). In addition, de Groat teaches on page 37, Figure 1, that the “dorsal root ganglion” is involved in the spinal cord control of bladder function. Thus, Applicants submit that direct involvement of neurologic cells in a urological function (e.g. bladder function) was understood by one of ordinary skill in the art prior to the time of filing of the instant application, and therefore the definition of urological cell in the manner found on page 5 of the specification would be readily understood and accepted by the skilled artisan. Therefore, Applicants also submit that the definition of “urological cell” in the way listed on page 5 of the specification is not repugnant to the usual meaning of the term.

Applicants submit that the definition of the term “urological cell” as defined in the specification at for example page 5, is (1) entirely proper under 35 USC §112, second paragraph and MPEP §2173.05; (2) consistent with meaning readily understood and accepted by one skilled in the art at the time of filing; and (3) therefore is not repugnant to its usual meaning in the art. Therefore, Applicants respectfully request reconsideration and withdrawal of the objection to the specification.

The Examiner also requested correction of any errors in the specification. Applicants have amended the specification as described above, amending the title to clearly and succinctly indicate the claimed invention of the instant application. In addition, Applicants have amended the abstract to clearly recite reference only to the currently claimed invention.

In view of the remarks and amendments described above, Applicants respectfully request reconsideration and withdrawal of the objections.

Objections to Claims 1 and 2 Should Be Withdrawn

The Examiner objected to claims 1 and 2 for informalities. Specifically, the Examiner objected to claim 1, because “it appears as though the ‘compound’, and ‘test compound’ in steps (a) and (b) are referring to the ‘candidate compound’.” The Examiner suggested using the same phrase for the candidate compound throughout the claim. In order to address the Examiner’s concern, Applicants have amended claim 1 to recite “compound” wherever it refers to the objected phrases. Applicants therefore respectfully request reconsideration and withdrawal of the objection to claim 1.

The Examiner objected to claim 2 because “the Markush group standard language would have an ‘and’ prior to the last member, but there is an ‘or’.” Applicants have amended claim 2 to recite “and” in the place of “or” at the end of the Markush group, correcting an apparent inadvertent typographical error. Applicants therefore respectfully request reconsideration and withdrawal of the objection to claim 2.

The Rejection of Claims 3-6 and 23 Under 35 USC §112, Second Paragraph Should Be Withdrawn

The Examiner rejected claims 3-6 and 23 under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, the Examiner rejected claims 3 and 4, stating “in claims 3, and 4 it is not clear if the polypeptide is referring to the amino acid sequence identified as SEQ ID NO:104 or the candidate compound?” Applicants traverse this rejection, as one of ordinary skill in the relevant art would necessarily recognize that the polypeptide of claim 3, further comprising heterologous sequences, necessarily refers to the polypeptide of claim 1 (defined in claim 1(a)(i-ii)), the claim upon which claim 3 depends. In addition, claim 4 has been amended to recite the method of claim 1, wherein the sample comprises “the polypeptide” rather than “an isolated polypeptide”. Applicants believe this amendment renders claim 4 clear, as it indicates that the polypeptide refers to the polypeptide recited in claim 1, i.e. a polypeptide comprising the amino acid sequence of SEQ ID NO:104 or a polypeptide encoded by the nucleotide sequence set forth in SEQ ID NO:103.

Additionally, the Examiner rejected claim 5, arguing “what does a urological cell mean? See also comment in objection of Specification. Does a urological cell include a neuron, and an astrocyte?” In an effort to expedite prosecution and in no way acquiescing to the Examiner’s rejection, Applicants have amended claim 5 to replace “a urological cell” with a cell “selected from the group consisting of a bladder cell, a prostate cell, a kidney cell, a vascular cell, a urethral cell, a dorsal root ganglion cell, a trigeminal ganglion cell, a brain cell, and a spinal cord cell.” Support for this amendment may be found in the specification for example at page 5, paragraph [0012] and at page 47-48, paragraph [0255]. Thus, Applicants submit that claim 5 is clear and definite under 35 USC §112, second paragraph. Applicants respectfully request reconsideration and withdrawal of the rejection.

The Examiner rejected claim 6, arguing “what does it mean to be ‘associated’ with urinary incontinence or benign prostatic hyperplasia?” Applicant traverse the rejection, since one of ordinary skill in the art would readily understand what the term “associated with urinary incontinence or benign prostatic hyperplasia” means. However, in an effort to advance prosecution, Applicants have canceled claim 6. Thus, the rejection of claim 6 under 35 USC §112, second paragraph is moot.

Finally, the Examiner rejected claim 23, arguing “what is the ‘activity’ of the polypeptide?” Applicants have canceled claim 24 and amended claim 23 to incorporate the limitations of claim 24. Applicants believe that amended claim 23 clearly and definitely indicates the assay for activity recited, namely a carboxypeptidase assay or an assay for proteolysis of extracellular peptides or proteins.

The Rejection of Claims 1-7, 23 and 24 Under 35 USC §102 Should Be Withdrawn

The Examiner rejected claims 1-7, 23 and 24 under 35 USC §102(b), as being anticipated by Song and Fricker (Journal of Biological Chemistry, 272(16): 10543-10550, 1997). Specifically, the Examiner stated that Song and Fricker disclose a human Carboxypeptidase Z and describe a test of Carboxypeptidase Z activity, identifying a candidate compound that inhibits Carboxypeptidase Z activity.

Applicants traverse the rejection and respectfully submit that the claimed methods of the instant application and those in Song and Fricker are in fact very different. Applicants submit that Song and Fricker do not teach each and every element of the pending claims as the method taught by Song and Fricker is different from the methods claimed in the present application. Specifically, whereas the methods recited in the claims of the present application are directed to identifying a compound capable of treating a urological disorder, namely urinary incontinence (claims 1-5, 7, and 23 as amended; claim 6 has been canceled) or benign prostatic hyperplasia (new claims 25-31), Song and Fricker in fact make no mention of urological disorder or disease, urinary incontinence, benign prostatic hyperplasia, or any disease or disorder at all. Song and Fricker do not mention, describe or even seem to contemplate such a method.

Applicants therefore submit that the two methods are distinct and that the method taught by Song and Fricker does not fall within the scope of the present claims. Applicants therefore respectfully request reconsideration and withdrawal of the rejection.

The Examiner also rejected claims 1-7, 23 and 24 under 35 USC §102(e), as being anticipated by Mack et al. (U.S. Publication 2004/0076955 A1). Specifically, the Examiner stated that Mack et al. disclose carboxypeptidase Z as a gene predictive of bladder cancer progression, as well as
“..a method for identifying a compound that modulates bladder cancer-associated polypeptide, the method comprising the steps of: (i) contacting the compound with a bladder cancer-associated polypeptide, the polypeptide encoded by a polynucleotide that selectively hybridizes to a sequence at least 80% identical to a sequence as shown in Tables 1A-13; and (ii) determining the functional effect of the compound upon the polypeptide...”

Applicants traverse the rejection and respectfully submit that the claimed methods of the instant application and those in Mack et al. are in fact very different. Applicants submit that Mack et al. do not teach each and every element of the pending claims as the method taught by Mack et al. is different from the methods claimed in the present application. Specifically, whereas the methods recited in the claims of the present application are directed to identifying a compound capable of treating urinary incontinence (claims 1-5, 7 and 23 as amended; claim 6 has been canceled) or benign prostatic hyperplasia (new claims

25-31), Mack et al. in fact make no mention of urinary incontinence, or benign prostatic hyperplasia. Mack et al. do not mention, describe or even seem to contemplate such a method, rather, the methods of Mack et al. are directed solely to cancer of the bladder and progression of cancer of the bladder.

Applicants therefore submit that the two methods are distinct and that the method taught by Mack et al. does not fall within the scope of the claims as amended. Applicants therefore respectfully request reconsideration and withdrawal of the rejection.

CONCLUSIONS

No new matter has been added by way of amendment, and Applicants submit that the application is now in condition for allowance

This paper is being filed timely as Applicants believe no extension of time is required. In the event any additional extensions of time are necessary, the undersigned hereby authorizes the requisite fees to be charged to Deposit Account No. 501668.

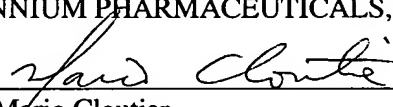
Entry of the remarks made herein is respectfully requested.

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Respectfully submitted,

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